



# ACETYLENE

(Dissolved)

UN 1001

Shipping Name: Acetylene, dissolved

Other Names: Ethine  
Ethyne



**WARNING!** • EXTREMELY FLAMMABLE!  
• CONTAINER MAY EXPLODE WHEN EXPOSED TO FIRE!

## Hazards:

- Vapors in confined areas (e.g., tanks, sewers, buildings) may explode when exposed to fire
- Vapors may travel long distances to ignition sources and flashback
- Reacts explosively with many materials
- Exposure of cylinders to fire and flame or elevated temperatures may cause cylinder to rupture or frangible disc to burst, releasing entire contents of cylinder. Ruptured or venting cylinders may rocket through buildings and/or travel a considerable distance

## Awareness and Operational Level Training

### Response:

- Stay upwind
- Determine the extent of the problem
- Remove all ignition sources
- Isolate the area of release or fire and deny entry
- Evacuate the immediate area and downwind for a large release
- For container exposed to fire evacuate the area in all directions because of the risk of explosion
- Notify local health and fire officials and pollution control agencies
- If contaminated runoff enters waterways, notify downstream users of potentially contaminated water

## Description:

- Colorless gas
- Garlic or ether-like odor
- Soluble in water
- Extremely flammable
- Vapors are lighter than air
- Often shipped and stored dissolved in acetone
- Not shipped by rail tank cars
- Cylinders have a fusible plug not a relief valve

## Operational Level Training Response:

### RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Use large amounts of water to disperse vapors - contain runoff
- Ventilate confined area if it can be done without placing personnel at risk

### FIRE:

- Do not extinguish the fire unless the flow of the gas can be stopped and any remaining gas is out of the line. Specially trained personnel may use fog lines to cool exposures and let the fire burn itself out
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cylinders are exposed to excessive heat from fire or flame contact, withdraw immediately to a secure location

## First Aid:

- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
  - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
- Seek medical attention

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